

# Work Order ID 94744

December-20-12 8:17:26 AM

*30.75*  
**\*94744\***

Page 1

Item ID: D3953-3  
Revision ID:  
Item Name: Gas Spring Stud, Lid

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Start Date: 12/19/12 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 1/11/13 Req'd Qty: 12.00

**\*12\***

Customer:

## Reference:

Approvals: Process Plan: *[Signature]* Date: *13-01-7*

Tooling:

Date:

Run Start **\*NR1\***

QC: Date: SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr Revision Nbr

D3953 C

100

0.00

**\*100\***

Doosan

Memo

0.00

Doosan Lathe

Turn as per folio FA852 & DWG  
FOLIO REV: *e*  
DWG REV: *e*

*13-1-16*

DEBURR

110

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*110\***

QC

Memo

0.00

Quality Control

*13-1-16*

*31* *4* *DAS 13 04 2-89* *DAS 13 04 2-89*

*31* *4* *DAS 13 04 2-89* *DAS 13 04 2-89*

Work Order ID 94744

\*94744\*

Page 2

December-20-12 8:17:26 AM

Item ID: D3953-3

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Gas Spring Stud, Lid

Start Date: 12/19/12 Start Qty: 12.00

\*12\*

Cust Item ID:

Required Date: 1/11/13 Req'd Qty: 12.00

\*12\*

Customer:

Reference:

Run Start \*NR1\*

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
*120*									
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location: 076 \$T	0.00							
*130*									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
*140*									
QC	Memo	0.00							
Quality Control									

13-01-17

31

13/01/18 (31)

13/01/22

13-01-18

# Picklist Print

December-20-12 8:17:25 AM

Page 1

Work Order ID: 94744

Parent Item: D3953-3

Parent Item Name: Gas Spring Stud, Lid

Start Date: 12/19/12

Required Date: 1/11/13

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP RevA: New issue DD verified by:EC  
10.03.02 verified by:EC

IPP Rev:B as per dwg revC DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304RO.750		Purchased	No			100	f	92.3400	0.125	1.5789468			
304 SS Roundbar .750													

## Location

## Loc Qty

## Loc Code

MAT028

75.906

116501

3.492

116623

1.708

121282 ✓

5.64

122386 ✓

5.066

123721

60

MAT029

16.434

117481

3.434

118509

12.4

120124

0.6

13.1.17 DAS 04 8-83

.75

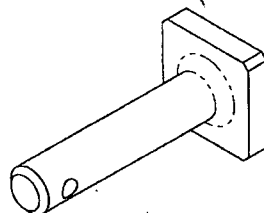
2.873

2.083

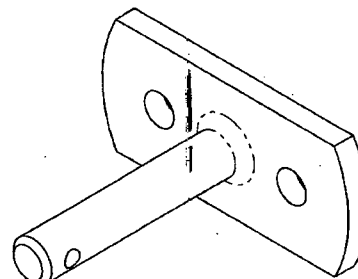




**D3953-1 GAS SPRING BRACKET**  
(FULL LID)



**D3953-3 GAS SPRING STUD, LID**



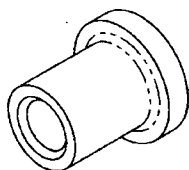
**D3953-5 GAS SPRING STUD, BASE**



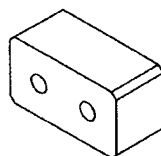
**D3953-7 GAS SPRING SPACER**



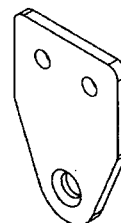
**D3953-9 GAS SPRING WASHER**



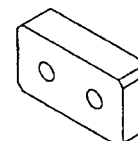
**D3953-11 GAS SPRING SPACER**



**D3953-13 GAS SPRING SPACER**  
(FULL LID)



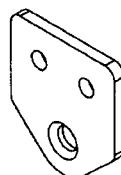
**D3953-15 GAS SPRING BRACKET**  
(SPLIT LID)



**D3953-17 GAS SPRING SPACER**  
(SPLIT LID)



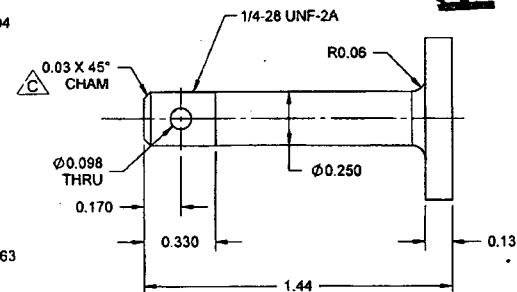
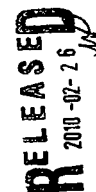
**D3953-19 GAS SPRING BRACKET**  
(SQUARE BASKET)



**D3953-21 GAS SPRING BRACKET**  
(SQUARE BASKET)

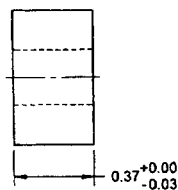
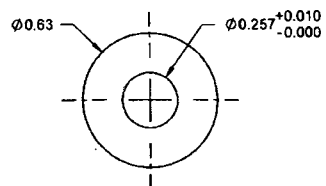
RELEASED  
2010-02-26

C	PARTS -19 & -21 ADDED (SHT 18 & 4). CSK CALLOUT WAS CHAM (CS-2, BS-3, CS-4). & SYMM WAS & SYM ABOUT (C7-2, C7-4). SECTION CC REPOSITIONED TO B24. REASON: ADDL PARTS REQD; DRAFTING ERRORS	JPH	10.01.29
B	SHEET 3 ZONE C1, DIM 0.05 MIN WAS 0.13. MULTIPLE DIMENSIONS MIN/MAX REMOVED TOLERANCE ADDED. REASON: DIFFICULTY INSTALLING COTTER PIN AT NEXT ASSY.	AJS	09.11.11
A	NEW ISSUE	AJS	09.07.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	JPH	DRAWING NO.	REV. C
MFG. APPR.	JPH	D3953	SHEET 1 OF 4
APPROVED	JPH	TITLE	SCALE
DE APPR.	JPH	GAS SPRING LID COMPONENTS	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

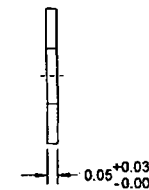
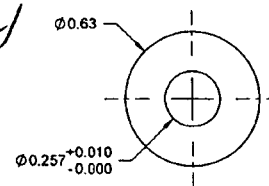


- 2) FINISH: N/A  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3953-X" USING FINE POINT PERMANENT INK MARKER  
7) WEIGHT -1: 0.11 lbs  
          -3: 0.03 lbs  
          -5: 0.06 lbs

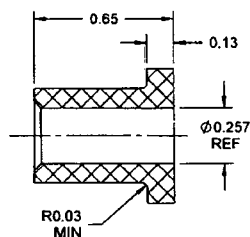
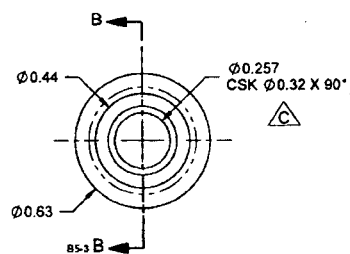
DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	<b>D3953</b>	SHEET 2 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>GAS SPRING LID COMPONENTS</b>	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS ISSUED AS A CONFIDENTIAL DOCUMENT. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED BY ANY OTHER PERSON WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD.	



**D3953-7 GAS SPRING SPACER**

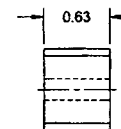
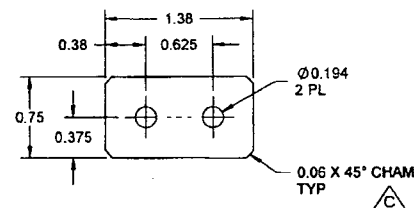


**D3953-9 GAS SPRING WASHER**



**D3953-11 GAS SPRING SPACER**

**SECTION B-B**



**D3953-13 GAS SPRING SPACER**

**NOTES:**

1) MATERIAL -7,-9 & -11: DELRIN II 150E OR ACETRON GP ACETAL, BLACK  
REF DART SPEC M-DELIRIN-R

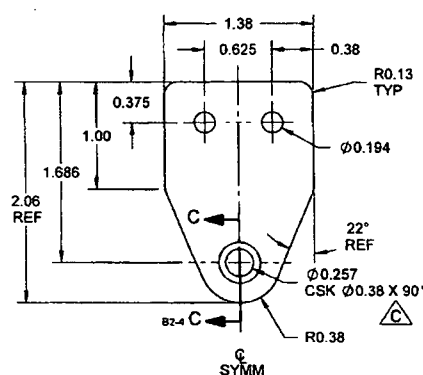
-13: AISI 304 STAINLESS STEEL BAR  
REF DART SPEC M304B

- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION -13 ONLY: IDENTIFY WITH DART P/N "D3953-13" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -7/-9/-11: < 0.01 lbs EACH  
-13: 0.17 lbs

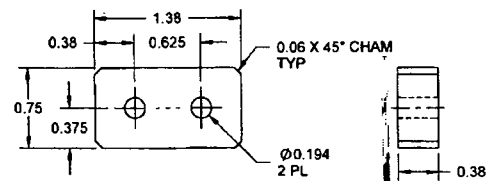
**RELEASED**  
2010-02-26

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	<b>D3953</b>	SHEET 3 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>GAS SPRING LID COMPONENTS</b>	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD	

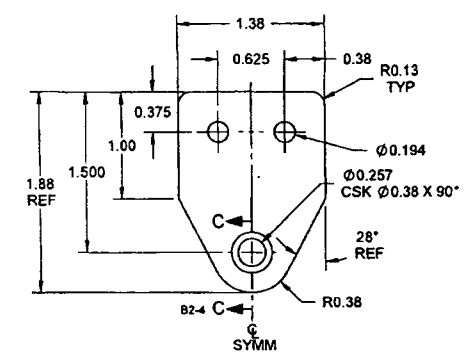
8 7 6 5 4 3 2 1



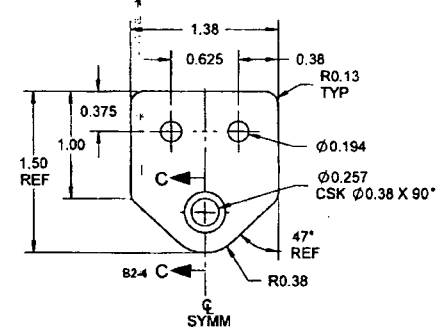
**D3953-15 GAS SPRING BRACKET**  
(SPLIT LID)



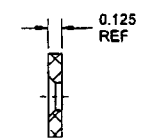
**D3953-17 GAS SPRING SPACER**  
(SPLIT LID)



**D3953-19 GAS SPRING BRACKET**  
(SQUARE BASKET)



**D3953-21 GAS SPRING BRACKET**  
(SQUARE BASKET)



**SECTION C-C**

- NOTES:**
- 1) MATERIAL -15/-19/-21: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S11GA
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3953-X" USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT -15: 0.08 lbs  
-17: 0.10 lbs  
-19: 0.07 lbs  
-21: 0.06 lbs

-17: AISI 304 STAINLESS STEEL BAR  
REF DART SPEC M304B

**RELEASED**  
2010-02-26

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JPH	DRAWING NO.	REV. C
MFG. APPR.	JPH	<b>D3953</b>	SHEET 4 OF 4
APPROVED	JPH	TITLE	SCALE
DE APPR.	JPH	<b>GAS SPRING LID COMPONENTS</b>	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD	

9474

8 7 6 5 4 3 2 1



## Receiving Report

Date:

Batch No:

**Supplier:**

Dart P/O:

**Packing Slip:**

Invoice:

**Receipt:**

Yes ☒ No

Yes            No

Cash Cr

Release Note Attached:

**Waybill Attached:**

**Shipment Complete:**

### QC6 Inspection

## Work Order

Yes ☒ No

Yes 2 No

Yes ☒ No ☐

2/14

N/A

2.

N/A

-N/A

## Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
	Neu 12 / Pkm		VOIR	P.O	RNR	Bu

Initials of receiver (if shipment OK) Level 12

**Production/Admin:**

Date \_\_\_\_\_

Received/Costing

Initial

### Location

# Purchase Order Receipt Listing

All amounts are calculated in domestic currency.

Thursday, April 05, 2012 10:59:52 AM

All Vendors PO ID PO16617 Receipt Dates from 4/5/2012 to 4/5/2012 All Line Item Types  
 All Item ID/GL/WOs All Rec. Employees All Currencies  
 Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID/Vendor Name VC-COP001 Thyssenkrupp Materials CA Ltd											
PO16617	2		M174R0.750	f	4/9/2012	4/5/2012	48.0000	\$5.11	0.0000	0	\$245.26
CAD	No		17-4 round bar .750	f	48.0000	DESJ02		\$245.26	0.0000	0	
			121282								
	3		M303R0.750	f	4/9/2012	4/5/2012	108.0000	\$3.90	0.0000	0	\$421.58
	No		303 Round Bar 0.750	f	108.0000	DESJ02		\$421.58	0.0000	0	
			121282								
	4		M303R1.000	f	4/9/2012	4/5/2012	24.0000	\$6.93	0.0000	0	\$166.23
	No		303 Round Bar 1.00	f	24.0000	DESJ02		\$166.23	0.0000	0	
			121282								
	5		M303H0.500	f	4/9/2012	4/5/2012	12.0000	\$2.70	0.0000	0	\$32.43
	No		303 HEX BAR .500	f	12.0000	DESJ02		\$32.43	0.0000	0	
			121282								
	6		M304R0.750	f	4/9/2012	4/5/2012	36.0000	\$3.30	0.0000	0	\$118.91
	No		304 SS Roundbar .750	f	36.0000	DESJ02		\$118.91	0.0000	0	
			121282								
	8		M6061T6B0.500X02. f		4/9/2012	4/5/2012	12.0000	\$2.92	0.0000	0	\$35.07
	No		500 6061-T6 Bar .500 x 2.50	f	12.0000	DESJ02		\$35.07	0.0000	0	
			121282								
	9		M6061T6B0.500X05. f		4/9/2012	4/5/2012	36.0000	\$6.21	0.0000	0	\$223.40
	No		000 6061-T6 Bar .500 x 5.00	f	36.0000	DESJ02		\$223.40	0.0000	0	
			121282								
	10		M6061T6B0.500X01. f		4/12/2012	4/5/2012	24.0000	\$1.23	0.0000	0	\$29.43
	No		000 6061-T6 Bar .500 x 1.00	f	24.0000	DESJ02		\$29.43	0.0000	0	
			121282								

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
<b>VendorID/Vendor Name</b>		<b>VC-COP001</b>	<b>Thyssenkrupp Materials CA Ltd</b>								
PO16617	11		M6061T6B2.000X04. f		4/9/2012	4/5/2012	12.0000	\$22.94	0.0000	0	\$275.29
			500		12.0000	DESJ02		\$275.29	0.0000	0	
CAD	No		6061T6 Bar 2.00 x f								
			4.500								
			121282								
	12		M6061T6B0.187X04. f		4/9/2012	4/5/2012	40.0000	\$1.90	0.0000	0	\$76.07
			000		40.0000	DESJ02		\$76.07	0.0000	0	
	No		6061-T6 Bar .187 x f								
			4.00								
			121282								
	13		M6061T6H1.000 f		4/9/2012	4/5/2012	12.0000	\$2.20	0.0000	0	\$26.42
	No		6061-T6 HexBar 1.00 f		12.0000	DESJ02		\$26.42	0.0000	0	
			121282								
	14		M6061T6R0.750 f		4/9/2012	4/5/2012	36.0000	\$1.19	0.0000	0	\$42.88
	No		6061-T6 Round Bar f		36.0000	DESJ02		\$42.88	0.0000	0	
			.750"								
			121282								
<b>Total Received Quantity:</b>										400.0000	
<b>Total Qty to Inspect (PO U/M):</b>										0.0000	
<b>Total Reject Quantity:</b>										0.0000	
<b>Total Receipt Value:</b>										\$1,692.96	
<b>Total Balance Due Quantity:</b>										0.0000	

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 9057389033

Ship To: ( 1)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7  
 Tel: 613-632-9577 Fax: 613-632-1053

# B I L L O F L A D I N G

No: PEC 760783  
 Ship Date 04Apr12 at 13:24 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest 2979  
 Vhcle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

## B I L L O F L A D I N G - REPRINT

1) Our Order PEC-436385- 1 Your PO # 16567  
 STAINLESS STEEL ROUND BAR 303 STAINLESS  
 .750" DIA X 144.0000"

Heat Number 24778 Tag No 53170

Quantity 108 FT PCS 9 Wt LBS 164

2) Our Order PEC-436385- 2 Your PO # 16567  
 STAINLESS STEEL ROUND BAR 303 STAINLESS  
 1.00" DIA X 144.0000"

Heat Number B0R5 Tag No 53171

Quantity 24 FT PCS 2 Wt LBS 65

3) Our Order PEC-436385- 3 Your PO # 16567  
 STAINLESS STEEL HEX BAR 303 STAINLESS  
 .50" HEX X 144.0000"

Heat Number 3Q060 Tag No 53172

Quantity 12 FT PCS 1 Wt LBS 9

4) Our Order PEC-436385- 4 Your PO # 16567  
 STAINLESS STEEL ROUND BAR 304L  
 .750" DIA X 144.0000"

Heat Number B1T1 Tag No 53173

Quantity 36 FT PCS 3 Wt LBS 55

5) Our Order PEC-436385- 5 Your PO # 16567  
 ALUMINUM FLAT BAR 6061-T6511  
 .50" x 2.50" X 144.0000"

Heat Number Z00224015 Tag No 53174

Quantity 12 FT PCS 1 Wt LBS 17

Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT.  
 ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
 RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT.  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

# B I L L O F L A D I N G

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 9057389033

No: PEC 760783  
 Ship Date 04Apr12 at 13:24 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhcle Trailer  
 Slip STAN IVERS (905-532-1350)  
 Sold To: ( 20115)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Ship To: ( 1)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7  
 Tel: 613-632-9577 Fax: 613-632-1053

## B I L L O F L A D I N G

1) Our Order PEC-436385- 1 Your PO # ~~16567~~ 16617  
 STAINLESS STEEL ROUND BAR 303 STAINLESS  
 .750" DIA X 144.0000"

Heat Number Tag No  
 24778 53170

Quantity PCS Wt LBS  
 108 FT 9 164

2) Our Order PEC-436385- 2 Your PO # ~~16567~~ 16617  
 STAINLESS STEEL ROUND BAR 303 STAINLESS  
 1.00" DIA X 144.0000"

Heat Number Tag No  
 B0R5 53171

Quantity PCS Wt LBS  
 24 FT 2 65

3) Our Order PEC-436385- 3 Your PO # ~~16567~~ 16617  
 STAINLESS STEEL HEX BAR 303 STAINLESS  
 .50" HEX X 144.0000"

Heat Number Tag No  
 3A060 53172

Quantity PCS Wt LBS  
 12 FT 1 9

4) Our Order PEC-436385- 4 Your PO # ~~16567~~ 16617  
 STAINLESS STEEL ROUND BAR 304L  
 .750" DIA X 144.0000"

Heat Number Tag No  
 B1T1 53173

Quantity PCS Wt LBS  
 36 FT 3 55

5) Our Order PEC-436385- 5 Your PO # ~~16567~~ 16617  
 ALUMINUM FLAT BAR 6061-T6511  
 .50" x 2.50" X 144.0000"

Heat Number Tag No  
 Z00224015 53174

Quantity PCS Wt LBS  
 12 FT 1 17

Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT.  
 ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
 RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION  
 TVQ/QST# 1017327981 TQ001-TPS/GST TVH/HST # 140223934 RT0001

DATE

12 / 4 / 14

B I L L O F L A D I N G  
Ship From:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 9057389033

Ship To: ( 1 )  
DART AEROSPACE

No: PEC 760783  
Ship Date 04Apr12 at 13:24 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: ( 20115 )  
DART AEROSPACE

B I L L O F L A D I N G

6) Our Order PEC-436385- 6 Your PO # 16567 16617  
ALUMINUM FLAT BAR 6061-T6511  
.50" x 5.00" X 144.0000"

Heat Number Tag No  
HK299 078 53175

Quantity PCS Wt LBS  
36 FT 3' 105

7) Our Order PEC-436385- 7 Your PO # 16567 16617  
ALUMINUM FLAT BAR 6061-T6511  
.50" x 1.00" X 144.0000"

Heat Number Tag No  
201203685 53176

Quantity PCS Wt LBS  
24 FT 2 14

8) Our Order PEC-436385- 8 Your PO # 16567 16617  
ALUMINUM FLAT BAR 6061-T6511  
2.00" x 4.50" X 144.0000"

Heat Number Tag No  
201204260 53178

Quantity PCS Wt LBS  
12 FT 1 129

9) Our Order PEC-436385- 9 Your PO # 16567 16617  
Part # ONLY 240" LENGTH  
ALUMINUM FLAT BAR 6061-T6511  
.187" x 4.00" X 240.0000"

Heat Number Tag No  
201200183 53180

Quantity PCS Wt LBS  
40 FT 2 35

10) Our Order PEC-436385- 10 Your PO # 16567 16617  
ALUMINUM ROUND BAR 6061-T6511  
.750" DIA X 144.0000"

Heat Number Tag No  
P0.750046 53181

Quantity PCS Wt LBS  
36 FT 3 19

11) Our Order PEC-436385- 11 Your PO # 16567 16617  
ALUMINUM HEXAGON BAR 6061-T6511  
1.00" X 144.0000"

Page: 12 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
RAPPORTÉES IMMÉDIATEMENT.  
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

# B I L L O F L A D I N G

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 9057389033

No: PEC 760783  
 Ship Date 04Apr12 at 13:24 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhicle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115)  
 DART AEROSPACE

Ship To: ( 1)  
 DART AEROSPACE

B I L L O F L A D I N G		Quantity	PCS	Wt LBS
Heat Number	Tag No	12 FT	1	12
201200184	53183			

12) Our Order PEC-436385- 12 Your PO # ~~16567~~ 16617  
 STAINLESS STEEL ROUND BAR 17-4 STAINLESS  
 .750" DIA X 144.0000"

Heat Number	Tag No	Quantity	PCS	Wt LBS
G18680	53184	48 FT	4	72

TOTAL:	Tags	PCS	LBS
	12	32	696

*P12/4/15*

Heat Number  
 201200183  
 201200184  
 201203685  
 201204260  
 24778  
 3A060  
 B0R5  
 B1T1  
 HK299 078  
 P0.750046  
 Z00224015

\*\*\* Chemical Analysis \*\*\*

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH  
 MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
 TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*

\*\* REFERENCED ON IT \*\*

TOTAL G.W 2 BDLS 724 LBS

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA

Page: 3 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT.  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION  
 TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

DATE

# B I L L O F L A D I N G

No: PEC 760783

Ship From:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 9057389033

Ship Date 04Apr12 at 13:24 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0-0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: (20115)  
DART AEROSPACE

Ship To: (1)  
DART AEROSPACE

# B I L L O F L A D I N G

CONCORD, ONT.\* \*\*\* 9:00 AM TO 4:00 PM \*\*\*  
\*\*\*\* TEL. 800-926-2600 \*\*\*\*  
\*\*\*\*\*  
\* WE STOCK STAINLESS STEEL \*  
\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*  
\*\*\*\*\*  
\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
ADDED TO EVERY ORDER.\*\*\*

Page: 4 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
RAPPORTÉES IMMÉDIATEMENT.  
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
RETOUR DE MARCHANDISES AVEC NOTRE NUMÉRO D'APPROBATION SEULEMENT.  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.



# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

STAINLESS STEEL ROUND BAR 304L

.750" DIA X 144.0000"

PART NO.

PO/Rel 16567

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: \_\_\_\_\_

## Certificate of Mill Test Results

BL PEC-760783-004

4Apr12

Pg 1/1



### METALLURGICAL TEST REPORT

NORTH AMERICAN STAINLESS

6870 HIGHWAY 42 EAST

GHENT, KY 41045

6870 HIGHWAY 42 EAST

Certificate: 702461 7

Customer: 007206 001

Mail To:

THYSSENKRUPP MATERIALS

2821 LANGSTAFF ROAD

CONCORD, ON L4K5C6

Ship To:

THYSSENKRUPP MATERIALS

2821 LANGSTAFF ROAD

CONCORD, ON L4K5C6

Date: 1/16/2012 Page: 1

Steel: 304/304L

Finish: CD

Corrosion: ASTM A262 Prac A/E OK

Your Order: PEC235177

NAS Order: PN 0016906 03

#### PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw

UNS 30400/30403 EN 10204 3.1, ASTM A484/08

ASTM A276/10, ASTM A479/10a, ASTM A182/10 CHEM ONLY,

ASME SA479/10a, ASME SA182/10 CHEM ONLY

AMS 5639H, AMS 5647J, AMS QQS-763B, QQS-763F

#### REMARKS:

COMPLIES W/REQUIREMENTS OF DFARS EU DIRECTIVE 2002.95.

EC. ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA

FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BE3172 8		.7500		1,040	144.00	9	1	

#### CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

HEAT	CM	C	CO	CR	CU	MN	MO	N	NI	P
B1T1	US	.0236	.1235	18.1550	.4320	1.3305	.3675	.0508	8.6485	.0380
		S	SI							
		.0270	.3120							

#### MECHANICAL PROPERTIES

Product Id	1 d o i c r	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 4D
BE3172 8	R L	172.00	68.38	99.17	70.46	49.63

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

Technical Dept. Mgr. \_\_\_\_\_

0000 0000

1/16/2012



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16617

Purchase Order Date 4/02/12

PO Print Date 4/02/12

Page Number 1 of 5

Order From :

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone 905 669 9444

Vendor Fax 905 738 9033

Vendor Account Nbr

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect M/21/2012

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
613 632 1053

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M2024T3S.032	2024-T3 .032 sheet	4/12/12 Yes	144.00 sf	Yours ppd	\$3.1771	\$457.50

Special Inst: MATERIAL: 2024-T3 ALUMINUM SHEET  
AS PER  
QQ-A-250/4 OR AMS-QQ-A-250/4 OR  
AMS 4037  
OR ASTM B209

2	M174R0.750 030	17-4 round bar .750	4/09/12 Yes	48.00 f	Yours ppd 6/12/15	\$5.1050	\$245.04 4
---	-------------------	---------------------	----------------	------------	----------------------	----------	---------------

Special Inst: MATERIAL: 17-4 PH/S17400 TYPE 630 SS  
ROUND BAR  
AS PER AMS 5643 OR ASTM A564

3	M303R0.750 028	303 Round Bar 0.750	4/09/12 Yes	108.00 f	Yours ppd 6/12/15	\$3.9000	\$421.20 96
---	-------------------	---------------------	----------------	-------------	----------------------	----------	----------------

Special Inst: MATERIAL: AISI 303 SS ROUND BAR AS  
PER ASTM A582  
NOTE: AISI 304/316 NOT ACCEPTABLE

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 4/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16617

Purchase Order Date 4/02/12

PO Print Date 4/02/12

Page Number 2 of 5

Order From :

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

905 669 9444

905 738 9033

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

4	M303R1.000 028	303 Round Bar 1.00	4/09/12 Yes	✓ 24.00 f	Yours ppd 6/12/15	\$6.9200	\$166.08 2
		Special Inst:	MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				
5	M303H0.500 037	303 HEX BAR .500	4/09/12 Yes	✓ 12.00 f	Yours ppd 6/12/15	\$2.7000	\$32.40
		Special Inst:	MATERIAL: AISI 303 SS HEX BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				
6	M304R0.750 028	304 SS Roundbar .750	4/09/12 Yes	✓ 36.00 f	Yours ppd 6/12/15	\$3.3000	\$118.80 3
		Special Inst:	MATERIAL: MATERIAL: 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE				
7	M304B0.750X2.500	304 BAR .750 X 2.50	4/12/12 Yes	12.00 f	Yours ppd	\$24.8500	\$298.20
		Special Inst:	MATERIAL: MATERIAL: 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE				

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 4/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16617

Purchase Order Date 4/02/12

PO Print Date 4/02/12

Page Number 3 of 5

Order From :

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone 905 669 9444

Vendor Fax 905 738 9033

Vendor Account Nbr

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

QTY	Part Number	Description	Unit Price	Total Price	Comments
8	M6061T6B0.500X02.500	6061-T6 Bar .500 x 2.50	4/09/12 Yes	12.00	Yours ppd f 4/12/12

Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR  
ASTM B221

9	M6061T6B0.500X05.000	6061-T6 Bar .500 x 5.00	4/09/12 Yes	36.00	Yours ppd f 4/12/12
---	----------------------	-------------------------	----------------	-------	------------------------

Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR  
ASTM B221

10	M6061T6B0.500X01.000	6061-T6 Bar .500 x 1.00	4/12/12 Yes	24.00	Yours ppd f 4/12/12
----	----------------------	-------------------------	----------------	-------	------------------------

Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR  
ASTM B221

No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required when applicable

Change Nbr: 1

Change Date: 4/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16617

Purchase Order Date 4/02/12

PO Print Date 4/02/12

Page Number 4 of 5

Order From : VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	905 669 9444	Requisition Nbr	
Vendor Fax	905 738 9033	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

11	M6061T6B2.000X04.500	6061T6 Bar 2.00 x 4.500	4/09/12	✓ 12.00	Yours ppd	\$22.9200	\$275.04
			Yes	f			

Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR  
ASTM B221

12	M6061T6B0.187X04.000	6061-T6 Bar .187 x 4.00	4/09/12	✓ 40.00	Yours ppd	\$1.9000	\$76.00
			Yes	f			

Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR  
ASTM B221

13	M6061T6H1.000	6061-T6 HexBar 1.00	4/09/12	12.00	Yours ppd	\$2.2000	\$26.40
			Yes	f			

Special Inst: 6061-T6/T651/T6510/T6511/T62 ALUMINUM HEX BAR  
SPEC: QQ-A-225/8 OR AMS-QQ-A-225/8  
(OR AMS4117/4128/4115/4116)  
OR QQ-A-200/8 OR AMS-QQ-A-200/8(OR  
AMS 4160) OR ASTM B211 OR ASTM  
B221

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 4/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16617

Purchase Order Date 4/02/12

PO Print Date 4/02/12

Page Number 5 of 5

Order From : VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	905 669 9444	Requisition Nbr	
Vendor Fax	905 738 9033	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

14	M6061T6R0.750	6061-T6 Round Bar .750"	4/09/12	X	36.00	Yours ppd	\$1.1900	\$42.84
			Yes		f	12/2/15		3

Special Inst: MATERIAL: 6061-  
T6/T651/T6510/T6511/T62 ALUMINUM  
ROUND BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/  
4115/4116 OR QQ-A-200/8 OR AMS-QQ-  
A-200/8 OR AMS 4160  
OR ASTM B211 OR ASTM B221

15		6061-T0 SHEET .060"	4/12/12		48.00	Yours ppd	\$2.8125	\$135.00
			Yes		Each			

Deliver To: DAN.S

PO Total: \$2,582.14

MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 4/02/12

# Receiving Report

Date: 12/11/16  
 Supplier: MEANPCOOL

Batch No: M123721  
 Dart P/O: 18350

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☐ No ☒  
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☒ No ☐ N/A ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QC6 Inspection: 12/11/16 N/A ☒  
 Work Order: 12/11/16 N/A ☒

## Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M606/17620.75		36	0	0	36	
D4107-005P		20	0	0	20	

Initials of receiver (if shipment OK) Level 12 [Signature]

Production/Admin: 12/11/16  
 Date: [Signature]  
 Received/Costing: [Signature]  
 Initial: [Signature]

Location

## Page 1 of 1

All amounts are calculated in domestic currency.

### Grouped by Vendor ID

[illegible]



**Castle Metals®**

A. M. Castle &amp; Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:1541462

<b>Ship From:</b> A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 14-NOV-2012	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOULIN		<b>BOL No</b> 1541462-2	

<b>Shipment Details</b>	<b>Final Destination Branch - MON</b>
-------------------------	---------------------------------------

<b>Order No</b> 2527499	<b>Line No</b> 3	<b>Item No</b> 14824	<b>Description</b> 0.7500.RD.304/304L STAINLESS.CF.ANN.132.0000-156.0000 SPECIFICATIONS: ASTM A276				
<b>Purchase Order No</b> 18350		<b>Part Number</b>		<b>Ordered Qty</b> 60.00 FT		<b>Invoice Qty</b> 60.0000 FT	
<b>Details</b>							
<b>Delivery No.</b> 118139949	<b>Mill</b> NORTH AMERICAN STAINLESS	<b>Heat Number</b> C5R5	<b>Mech Id</b>	<b>PCS</b> 5	<b>Width (IN)</b>	<b>Length (IN)</b> 144.0000	<b>Shipped Qty(LBS)</b> 90.0000

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:

12/11/14

Castle Metals FP

HEAT NUMBER	25 P5
MECHANICAL ID	
ITEM CODE	14824
LOT NUMBER	
PO NUMBER	162476
RECEIPT DATE	5-16-12
SUPPLIER	XAS
SPECIFICATION	
LCS	120
COMMENT	
APPROVED	01



**NORTH AMERICAN  
STAINLESS**

# METALLURGICAL TEST REPORT

6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

Certificate: 736684 02 Mail To:  
A.M. CASTLE AND COMPANY  
1420 KENSINGTON ROAD-SUITE 220  
OAK BROOK IL 60523

Ship To:  
A.M. CASTLE AND COMPANY  
3400 NORTH WOLF ROAD  
FRANKLIN PARK IL 60131

Date: 5/13/2012 Page: 1 Of 1  
Steel: 304/304L  
Finish: Cold Draw  
Dia/Thk: .7500 in  
Leg Length:  
Length: 144.00 in  
Corrosion: ASTM A262 Prac A/E OK

Customer: 0032 001

NAS Order: LN 82572 1

Your Order: 162470

Item Code: 14824

## PRODUCT DESCRIPTION:

ASTM A193/10a-ASME SA193/10 CL 1 GR B8  
GRAIN SIZE= 4-6

Round Bar, Annealed, Cold Draw

UNS 30400/30403 EN 10204 3.1, ASTM A484/10

ASTM A276/10, ASTM A479/10a, ASTM A182/10 CHEM ONLY,

ASME SA479/10a, ASME SA182/10 CHEM ONLY

AMS 5639H, AMS 5647J, AMS QQS-763B, QQS-763F

SOLUTION ANNEAL TEMP 1900F MIN

## REMARKS:

COMPLIES W/REQUIREMENTS OF DFARS EU DIRECTIVE 2002.95.  
EC. ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA  
FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BE61784	2496								

## CHEMICAL ANALYSIS

CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Heat	Supplier #	CM	C	CO	CR	CU	MN	MO	N	NI	P	S
C5R5		US	.019	.15	18.66	.43	1.40	.38	.080	8.57	.033	.0255
			SI									
			.23									

## MECHANICAL PROPERTIES

	1 d	HB	.2YS	UTS	RA	Elong
	o i	No.	KSI	KSI	%	% 4D
	c r					
BE61784	R L	208.0	75.11	99.73	70.74	41.31

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

Technical Dept. Mgr.

ERIC HESS

**DART**  
aerospaceDart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053**PURCHASE ORDER**Purchase Order ID **PO18350**

Purchase Order Date 11/07/12

PO Print Date 11/07/12

Page Number 1 of 3

**Order From :**METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720  
P.O. BOX 4090 STN A  
TORONTO, ON M5W OE9  
CA

VC-MET001

**Contact Name****Vendor Phone** 514 694 9575**Vendor Fax** 514 695 3281**Vendor Account Nbr****Buyer**

Chantal Lavoie

**Requisition Nbr****Tax Resale Nbr**

10127-2607

**Terms**

Net 30

**Currency**

CAD

**FOB**

Destination-Collect

**Ship To :**

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA**FAKED**  
08/21/10

M123721

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M6061T6R0.750 013	6061-T6 Round Bar .750"	11/15/12 Yes	36.00 f	Yours ppd	\$2.1600	\$77.76
		Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/ 4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221					
2	M304R0.750 028	304 SS Roundbar .750	11/15/12 Yes	60.00 f	Yours ppd	\$4.4200	\$265.20
		Special Inst: MATERIAL: MATERIAL: 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE					
3	M303R0.500 028	303 Round Bar 0.500"	11/15/12 Yes	48.00 f	Yours ppd	\$2.0900	\$100.32

**MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY**No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO

Change Nbr: 1

Change Date: 11/07/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO18350

Purchase Order Date 11/07/12

PO Print Date 11/07/12

Page Number 2 of 3

Order From :

VC-MET001

METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720  
P.O. BOX 4090 STN A  
TORONTO, ON M5W 0E9  
CA

Contact Name

Vendor Phone 514 694 9575

Vendor Fax 514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

QTY	Part Number	Description	Size	Unit	Price	Amount
4	M304B0.500X2.500	304 BAR	500 x 2.50	11/15/12	24.00	\$15.5900
				Yes		\$374.16

Special Inst: MATERIAL: AISI 303 SS ROUND BAR AS  
PER ASTM A582  
NOTE: AISI 304/316 NOT ACCEPTABLE

Special Inst: AISI 304/316 SS BAR OR AISI 304/316 SS  
PLATE  
AS PER ASTM A276 OR ASTM A240  
(NOTE: AISI 303 NOT ACCEPTABLE)

5	M304B0.625X3.000	304 BAR	625 X 3.00	11/15/12	12.00	\$25.8500
				Yes		\$310.20

Special Inst: AISI 304/316 SS BAR OR AISI 304/316 SS  
PLATE  
AS PER ASTM A276 OR ASTM A240  
(NOTE: AISI 303 NOT ACCEPTABLE)

6	D6101-005P	7075-T7351	8.25X5.0X2.5	11/19/12	20.00	\$57.9500
				Yes	Each	\$1,159.00

MATERIAL CERTIFICATION  
REQD UPON DELIVERY

Change Nbr: 1

Change Date: 11/07/12

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO

**DART**  
aerospaceDart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053**PURCHASE ORDER**Purchase Order ID **PO18350**

Purchase Order Date 11/07/12

PO Print Date 11/07/12

Page Number 3 of 3

**Order From :**METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720  
P.O. BOX 4090 STN A  
TORONTO, ON M5W OE9  
CA

VC-MET001

**Contact Name****Vendor Phone** 514 694 9575**Vendor Fax** 514 695 3281**Vendor Account Nbr****Buyer**

Chantal Lavoie

**Requisition Nbr****Tax Resale Nbr**

10127-2607

**Terms**

Net 30

**Currency**

CAD

**FOB**

Destination-Collect

**Special Inst:** AS PER DWG D6101 REV. B  
B92660  
MATERIAL: 7075-T7351 AS PER QQ-A-  
250/12  
SIZE: 5.00" X 8.250" X 2.50" THICK  
GRAIN DIRECTION ALONG 5.00"  
LENGTH  
TOLERANCE ON ALL DIMENSION ARE  
+0.030"/-0.000"**PO Total:****\$2,286.64****MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY****Change Nbr:** 1**Change Date:** 11/07/12No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO